

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Fin-Tec Inc.

Maryland Technology Extension Service

Fin-Tec Verifies Quality To Preserve Customer Relationship

Client Profile:

Fin-Tec, Inc., established in 1995, specializes in metal finishing/electroplating of microwave and electronic component parts for the filter companies in Salisbury, Maryland. The company, which employs less than 50 people, has estimated annual sales of approximately \$2.5 million.

Situation:

Fin-Tec, Inc. had a contract with a local machine shop to apply a chromate coating to a 4400-part order, components of a much larger military system. Inspection of the coated parts revealed a number of the parts had what appeared to be bare areas, raising questions about the presence of chromium. The absence or reduced presence of the chromium could cause premature corrosion and, ultimately, failure. Thus, unless the presence of chromium could be verified, the questionable parts--approximately 10 percent of the order--would have to be scrapped. With each part valued at \$5, the company could not afford to simply scrap them. Fin-Tec called in the Maryland Technology Extension Service (MTES), a NIST MEP network affiliate located at the University of Maryland, for assistance.

Solution:

MTES used Environmental Scanning Electron Microscope (ESEM) techniques to analyze both a good part and a questionable part to determine the presence of the chromate coating on both samples, even though it was not visible on the questionable part. A comparison of the analysis for both the good and questionable part also provided insight into how much chromium was present on the clean part when compared to a normal-colored part. Results of the ESEM analyses confirmed the equivalent presence of chromium on both the good part and the questionable part. Based on this information, Fin-Tec's customer verified to the quality assurance representative for the contract that the parts were in fact coated and received permission to ship.

Results:

Devised a means to verify product quality.
Saved Fin-Tec's customer approximately \$2200.
Solidified customer service and quality reputation.
Retained large customer order associated with homeland defense initiative.

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Testimonial:

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